

Mr. Fuller's Most Peculiar Firearm

For the past year, I have been treating American military shoulder arms from the Fuller Gun Collection at the Chickamauga and Chattanooga National Military Park (CHCH). In 1954, this collection of over 350 firearms was given to the United States by Claud E. Fuller and his wife, Zenada, of Chattanooga, Tennessee. Claud Fuller was a life-long collector of American military arms (among several other things) and his collection spans four centuries—from 17th-century matchlocks to the Model 1917 Springfield/Remington “World War” Rifle. Mr. Fuller believed it to be the most complete collection of its kind.

The general purpose in treating the entire collection is to document its present condition, stabilize any corrosion of the metals or deterioration of the wooden components, and protect them against future deterioration. Each gun is photographed and its condition documented. Although treatments for each gun are proposed on an individual basis, the basic regimen is the same.

The guns are disassembled as completely as possible. All metal parts are cleaned with solvents, but usually some mechanical techniques are used as well—scalpels, soft brushes; even dental tools are used, but with great care to avoid scratching the metallic surfaces. Any proof marks or other stampings found are noted along with any other

observations which might be of interest. Ferrous metal parts are heated and coated with a petroleum-based wax. Brass or bronze parts are coated with an acrylic lacquer. Wooden components are cleaned and coated with pigmented carnauba wax. All of these coating materials can be easily removed or replaced some time in the future. Some cosmetic restoration is also being done—especially where old repairs have failed or where the finish has become marred. Photographs are again taken after the treatment is completed. These, along with the individual treatment reports, will provide the National Park Service base-line documentation of the collection's condition at a fixed point in time. This documentation is essential to tracking changes that may occur to the collection in the years to come.

In theory, conservators treat all artifacts with equal care and attention. However, there are times when something special comes our way, and we need to respond to its uniqueness. It is a fairly routine matter for conservators to study the objects they treat. In some instances the connoisseurship which results can be critical to the development of a treatment strategy. But, in the process of trying to learn about the special gun that is the focus of this article, I suspect I may have put in a few more hours than usual (since it was most unlikely to affect the treatment procedure) as I tried to establish the factual basis for what has been published on the subject.

Well *why not?* Take a look at it! It's a gun with a crank sticking out of its stock. That's certainly odd—and in itself pretty intriguing, especially on a mid-19th-century firearm! It would not be unreasonable to guess that the crank might have some mechanical connection to the loading or firing mechanisms. Considering its martial purpose, what else could it be for?

The gun is a 0.52 caliber Sharps New Model 1863 carbine, serial number 81319. This weapon (without the crank) was

Model 1863 Sharps Carbine with mill crank installed. Photo by the author.



*Detail of Sharps
New Model
1863 Carbine
with mill. Photo
by Charles
Shepard.*

one of the most desirable arms issued during the Civil War. It is breech-loading—and, therefore, its user held a critical advantage over soldiers who often had to expose themselves to enemy fire while recharging their muzzle-loaded rifles. Although it was not the first breech-loading arm purchased by the military—that distinction goes to the Hall breech-loading flintlocks made in Portland, Maine in 1817¹—it did have the advantage over earlier models of having a self-contained pellet primer which fed an explosive charge between the breech cone and hammer as it was cocked and subsequently released. This eliminated having to put a small cap on the cone between each shot—another step saved and an especially welcome feature when fingers got clumsy during cold weather. While soldiers with muzzle-loading guns raced through a complicated manual of arms to fire at a rate of three rounds per minute, the possessor of a Sharps carbine could easily get off 10 rounds in a minute.²

If you guessed that the crank plays a role in increasing the soldier's rate of fire you would be wrong. When the crank and its internal mechanism is removed from the butt stock, it becomes immediately apparent that this attachment is a grinding device of some sort. It has an input port in the upper end of the plate on the lower edge of the butt stock. The plate opposite the crank has an output slot. The question is, just what is supposed to come *out* of that slot?

In his privately published volume entitled *Fuller Gun Notes*, the title of Mr. Fuller's entry for this gun reads: "Sharps Breech Loading Carbine. New Model 1863 with Coffee Mill."³ Early on, however, I read accounts which cast doubt on its function as a coffee grinder. CHCH park historian Jim Ogden ground a few coffee beans in the gun (just prior to shipping it off for treatment). He reported disappointing results, stating that it would take an excessive number of beans to make a decent cup of coffee using the built-in grinder.⁴ Other authors reported similar disappointing results,^{5,6} and one logically speculated that since "...coffee was more of a luxury [for Civil War era soldiers], it is more likely that the 'coffee mill'



was originally a grain mill," presumably for converting foraged grains into meal or flour.⁷

In looking further into the matter it soon became clear that the Sharps Rifle Manufacturing Co. was not responsible for this adaptation.⁸ The question as to who was responsible seemed to have several answers. Here is a sampling: "During the Civil War a workman employed at the St. Louis Arsenal devised a plan to incorporate a coffee mill on the butt stock of the gun."^{9,10} "The coffee mill part was added ... by James McMurphy of Camden, New Jersey on contract for the Ordnance department."¹¹ "The Coffee Mill attachment, located in the stock where the patch box is usually placed, was added to a few of these carbines by a contractor in S [sic] Saint Louis, Mo. The idea being to issue one to a company."¹² "The theory was that the mill would be useful for grinding corn and other grain ... as well as the issue coffee."¹³

While there may be elements of the truth in all of these assertions—the only solid answer came to my attention just before this article was due. Mr. Howard Madaus, curator of the Cody Firearms Museum, thought I would find an authoritative article in the quarterly journal published by the Company of Military Historians. He was quite right. In a brief article on the origin and purpose of the Sharps mill gun, its author quotes directly from the January 6, 1865, report of an inspection board charged with inspecting and reporting about this modification (and other improvements) to the Adjutant General of the Army, Lorenzo Thomas. This board included an Assistant Inspector General for the Cavalry Bureau, a senior officer from the Subsistence Department, and its presiding officer was a gen-

eral officer from the Quartermaster Department.¹⁴

The inventor was Lt. Col. Walter King who was on “detached service” from the 4th Missouri State Militia Cavalry for all of 1864 and 1865 until he was mustered out on April 20, 1865. He was the son of Austin Augustus King, a former governor of Missouri and a member of Congress during the war. Col. King was actually promoting the adoption by the War Department of a group of four items, which the board characterized as “raiding equipments.” Specifically, they were considering their use by small mounted units, especially those in frontier service. The “equipments” consisted of the Sharps carbine with a mill in its butt stock for grinding foraged grain, a cooking kit in a seven-inch square leather container, a saddle bag to hold two months’ supply of sugar, salt, and coffee, and lastly a canteen with a shoulder strap.

The board’s report was not encouraging. They felt that if there were grain available to be foraged, there would also be mills nearby for its processing. They expressed doubt that grain found in the field would be dry enough to be successfully ground into meal or flour. They also objected to adding more weight to the cavalryman’s equipment when recent experience had shown that their first priority should be to see that the soldier is able to carry as much ammunition as possible. They also pointed out that the mill could not be universally installed, and in particular would not work on the more recently adopted Spencer repeating carbine—because its seven-round magazine runs right down the middle of its butt stock.

Allowing that others might disagree with their findings, the board recommended that Lt. Col. King be permitted to conduct a “fair trial in the field,” and (at his own expense) be allowed to outfit a squadron of up to 100 men with the permission of the unit’s commanding officer.¹⁵

At present it is not known if the field trial ever took place. In fact, much more research is needed to determine with documented certainty even the basic facts about this gun. Did Lt. Col. King intend for every mounted soldier to be issued his own “raiding equipments,” or would they be spread out among the troops? How many Sharps were actually adapted to include a mill,

and from what arsenal were they issued? Did Col. King have to purchase them himself or were they on loan and subsequently returned to the issuing armory? Who actually installed the mills and where? How were the guns finally disposed of? Did Congressman King use his influence to get his son a hearing for his inventions and permission to conduct a field trial?

The “Coffee Mill” Sharps carbine is one of the rarest guns collected. I know of four. It is often said that eight genuine examples exist. Others have estimated their being between 50 and 100. Much remains a mystery, and my research will continue in order to “tie up” the loose ends and one day to publish a more expanded article on this most peculiar firearm.

Notes

- 1 Steward Brown, *The Guns of Harpers Ferry*. (Berryville, VA: The Virginia Book Company 1986), 69.
- 2 Wiley Sword, *Sharpshooter: Hiram Berdan, his famous Sharpshooters and their Sharps Rifles*, (Lincoln, RI: Andrew Mowbray Incorporated, 1988), 42.
- 3 Claude E. Fuller, *Fuller Gun Notes*, (Collegedale, TN: Collegedale Bindery, 1957), 732
- 4 James Ogden, Historian, Chickamauga and Chattanooga National Military Park, personal communication.
- 5 Richard E. Hopkins, *Military Sharps Rifles & Carbines Vol. I* (self-published in 1960s, San Jose, CA), 50.
- 6 Arnold Chernoff’s account of Andrew Lustyik’s grinding trials, *The Gun Report*, “Gun of the Month,” 56.
- 7 Frank Sellers, *Sharps Firearms*. (Denver: Frank Sellers, 1982) 76.
- 8 Ibid.
- 9 From an advertisement for item #2270 in a reprint of a 1920s Bannerman’s Manhattan surplus arms catalogue.
- 10 Hopkins, p 48.
- 11 Sellers, p. 76.
- 12 Fuller, p. 732
- 13 Harold L. Peterson, *The Treasury of the Gun*. (New York: Golden Press, Inc. and The Ridge, Inc., 1963), 175
- 14 Roger D. Sturcke, *Military Collector and Historian*, “Cavalry ‘Raiding Equipment’: The ‘Coffee Mill’ Sharps Carbine Question,” XXXI: 4, 181–2, 1979.
- 15 Sturcke, p. 181.

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